

ABSTRACT

Processes, methods, materials and compositions for phytoremediating contaminated waters, which have been contaminated with pollutants such as arsenic, phosphorous, or other metals. Fern plants can be used to accumulate pollutants from contaminated water, including aqueous solution, waste water, ground water, surface
5 water, combinations thereof. Pollutants and contaminants can be removed from the water, soil and wetland type environment via foliar application, excised leaflets, and/or through compositions of ground leaflets. The biomass can be harvested and readily disposed of, or can be treated to recover the pollutants and contaminants.